IN THE CLAIMS

1. (currently amended) A method of vaccinating a mammal against a disease state, comprising administrating to said mammal, within an appropriate vector, a nucleotide sequence encoding an antigenic peptide associated with the disease state and not associated with a virus particle;

additionally administering to said mammal a Schiff base forming compound which enhances both humoral and cellular immune responses initiated by the antigenic peptide, the compound being selected from the group consisting of:

4-(2-formyl-3-hydroxyphenoxymethyl)benzoic acid;

5-(2-formyl-3-hydroxyphenoxy)pentanamide;

N,N-diethyl 5-(2-formyl-3-hydroxyphenoxy)pentanamide;

N-isopropyl 5-(2-formyl-3-hydroxyphenoxy)pentanamide;

ethyl 5-(2-formyl-3-hydroxyphenoxy)pentanoate;

5-(2-formyl-3-hydroxyphenoxy)pentanonitrile;

(±)-5-(2-formyl-3-hydroxyphenoxy)-2-methylpentanoic acid;

5-(2-formyl-3-hydroxyphenoxy)-2,2-dimethylpentanoic acid;

methyl 3-(2-formyl-3-hydroxyphenoxy)methylbenzoate;

3-(2-formyl-3-hydroxyphenoxy)methylbenzoic acid;

benzyl 5-(2-formyl-3-hydroxyphenoxy)pentanoate;

5-[4-(2-formyl-3-hydroxyphenoxy)-*N*-butyl]tetrazole;

7-(2-formyl-3-hydroxyphenoxy)heptanoic acid;

5-(2-formyl-3-hydroxy-4-*n*-propoxyphenoxy)pentanoic acid;

5-(4,6-dichloro-2-formyl-3-hydroxyphenoxy)pentanoic acid;

5-(2-formyl-3-hydroxyphenoxy)-*N*-methylsulphonylpentanamide;

ethyl 4-(2-formyl-3-hydroxyphenoxymethyl)benzoate;

5-(4-chloro-2-formyl-3-hydroxyphenoxy)pentanoic acid;

5-(3-acetylamino-2-fomyl phenoxy)pentanoic acid;

Aminoguanidine;

4-(2-formyl-3-hydroxyphenoxy)butanoic acid;
6-(2-formyl-3-hydroxyphenoxy)hexanoic acid;
ethyl 4-(3-acetylaminio-2-formylphenoxymethyl)benzoate;
4-(3-acetylamino-2-formylphenoxymethyl)benzoic acid;
2-(2-formyl-3-hydroxyphenoxymethyl)benzoic acid;
5-[4-(2-formyl-3-hydroxyphenoxymethyl)phenyl]tetrazole;
5-(2-formyl-3-hydroxy-4-methoxyphenoxy)pentanoic acid;
3-(2-formyl-3-hydroxyphenoxy)propionitrile;
4-Hydroxyphenylacetaldehyde;
Phenylacetaldehyde;
4-Methoxyphenylacetaldehyde;
1-hydroxy-2-phenylpropane;
3-Phenylproponionaldeyde;
4-Nitrobenzaldehyde;
Methyl 4-formylbenzoate;
4-Chlorobenzaldehyde;
4-Methyloxybenzaldehyde;
4-Methylbenzaldehyde;
8,10-Dioxoundecanoic acid;
4,6-Dioxoheptanoic acid;
Pentanedione;
5-methoxy-1-tetralone;
6-methoxy-1-tetralone;
7-methoxy-1-tetralone;
2-tetralone;
3-hydroxy-1-(4-methoxyphenyl)-3-methyl-2-butanone;
2' ,4'-dihydroxy-2-(4-methoxyphenyl)acetophenone;
2-hydroxy-1-(4-methyoxyphenyl)-pent-2ene-4one;
Naringenin 4',5,6-trihydroxyflavonone;

4'-methoxy-2-(4-methoxyphenyl)acetophenone;
6,7-dihydroxycoumarin;
7-methoxy-2-tetralone;
6,7-dimethoxy-2-tetralone;
6-hydroxy-4-methylcoumarin;
Homogentisic acid gamma lactone;
6-hydroxy-1,2-naphthoquinone;
8-methoxy-2-tetralone;
and physiologically acceptable salts thereof, where appropriate.

2. (previously presented) The method according to claim 1 wherein administration of the compound takes place on between one and seven occasions, between 14 days prior to and 14 days post administration of the nucleotide sequence.

3. (previously presented) The method according to claim 1 wherein administration of the compound takes place on between one and seven occasions, between 7 days prior to and 7 days post administration of the nucleotide sequence.

4. (previously presented) The method according to claim 1 wherein administration of the compound takes place between 24 hours prior to and 24 hours post administration of the nucleotide sequence.

5. (previously presented) The method according to claim 1 wherein administration of the compound is simultaneous with administration of the nucleotide sequence.

6. (currently amended) The method according to claim 1 ~~any one of claims 1-5~~ wherein administration of the compound and the nucleotide sequence is repeated between 1 and 4 times, at intervals of between 1 day and about 18 months.

7. (previously presented) The method according to claim 1 wherein administration of the nucleotide sequence is via the oral, nasal, pulmonary, intramuscular, subcutaneous or intradermal route.

8. (previously presented) The method according to claim 7 wherein the nucleotide sequence is administered using a gene-gun delivery technique.

9. (previously presented) The method according to claim 1 wherein administration of the compound is via the oral, nasal, pulmonary, intramuscular, subcutaneous, intradermal or topical route.

10. (currently amended) The method according to claim 9 [[1]] wherein the compound is administered using a gene-gun delivery technique.

11. (currently amended) The method according to claim 1 [[9]] wherein the compound is administered at a dose of between 0.1 mg/kg and 100 mg/kg per administration.

12. (previously presented) The method according to claim 1 wherein the mammal is a human.

13. (previously presented) The method according to claim 1 wherein the compound is 4-(2-formyl-3-hydroxyphenoxymethyl)benzoic acid.

14. (withdrawn and currently amended) A vaccine composition comprising a nucleotide sequence which encodes for an antigenic peptide associated with a disease state and ~~which~~ is not associated with a virus particle, within an appropriate vector, and a Schiff base forming compound which will enhance both humoral and cellular immune responses in a mammal which are initiated by the antigenic peptide, the compound being selected from the group consisting of:

4-(2-formyl-3-hydroxyphenoxymethyl)benzoic acid;
5-(2-formyl-3-hydroxyphenoxy)pentanamide;
N,N-diethyl 5-(2-formyl-3-hydroxyphenoxy)pentanamide;
N-isopropyl 5-(2-formyl-3-hydroxyphenoxy)pentanamide;
ethyl 5-(2-formyl-3-hydroxyphenoxy)pentanoate;
5-(2-formyl-3-hydroxyphenoxy)pentanonitrile;
(±)-5-(2-formyl-3-hydroxyphenoxy)-2-methylpentanoic acid;
5-(2-formyl-3-hydroxyphenoxy)-2,2-dimethylpentanoic acid;
methyl 3-(2-formyl-3-hydroxyphenoxy)methylbenzoate;
3-(2-formyl-3-hydroxyphenoxy)methylbenzoic acid;
benzyl 5-(2-formyl-3-hydroxyphenoxy)pentanoate;
5-[4-(2-formyl-3-hydroxyphenoxy)-*N*-butyl]tetrazole;
7-(2-formyl-3-hydroxyphenoxy)heptanoic acid;
5-(2-formyl-3-hydroxy-4-*n*-propoxyphenoxy)pentanoic acid;
5-(4,6-dichloro-2-formyl-3-hydroxyphenoxy)pentanoic acid;
5-(2-formyl-3-hydroxyphenoxy)-*N*-methylsulphonylpentanamide;
ethyl 4-(2-formyl-3-hydroxyphenoxymethyl)benzoate;
5-(4-chloro-2-formyl-3-hydroxyphenoxy)pentanoic acid;
5-(3-acetylamino-2-fomyl phenoxy)pentanoic acid;
Aminoguanidine;
4-(2-formyl-3-hydroxyphenoxy)butanoic acid;
6-(2-formyl-3-hydroxyphenoxy)hexanoic acid;
ethyl 4-(3-acetylaminio-2-formylphenoxymethyl)benzoate;
4-(3-acetylamino-2-formylphenoxymethyl)benzoic acid;
2-(2-formyl-3-hydroxyphenoxymethyl)benzoic acid;
5-[4-(2-formyl-3-hydroxyphenoxymethyl)phenyl]tetrazole;
5-(2-formyl-3-hydroxy-4-methoxyphenoxy)pentanoic acid;
3-(2-formyl-3-hydroxyphenoxy)propionitrile;
4-Hydroxyphenylacetaldehyde;

Phenylacetaldehyde;
4-Methoxyphenylacetaldehyde;
1-hydroxy-2-phenylpropane;
3-Phenylproponionaldeyde;
4-Nitrobenzaldehyde;
Methyl 4-formylbenzoate;
4-Chlorobenzaldehyde;
4-Methyloxybenzaldehyde;
4-Methylbenzaldehyde;
8,10-Dioxoundecanoic acid;
4,6-Dioxoheptanoic acid;
Pentanedione;
5-methoxy-1-tetralone;
6-methoxy-1-tetralone;
7-methoxy-1-tetralone;
2-tetralone;
3-hydroxy-1-(4-methoxyphenyl)-3-methyl-2-butanone;
2' ,4'-dihydroxy-2-(4-methoxyphenyl)acetophenone;
2-hydroxy-1-(4-methyoxyphenyl)-pent-2ene-4one;
Naringenin 4',5,6-trihydroxyflavonone;
4'-methoxy-2-(4-methoxyphenyl)acetophenone;
6,7-dihydroxycoumarin;
7-methoxy-2-tetralone;
6,7-dimethoxy-2-tetralone;
6-hydroxy-4-methylcoumarin;
Homogentisic acid gamma lactone;
6-hydroxy-1,2-naphthoquinone;
8-methoxy-2-tetralone;
and physiologically acceptable salts thereof, where appropriate.

15. (withdrawn) The vaccine composition according to claim 14 which is in a form suitable for administration via the oral, nasal, pulmonary, intramuscular, subcutaneous or intradermal route.

16. (withdrawn) The vaccine composition according to claim 14 which is in a form suitable for administration using a gene-gun delivery technique.

17. (withdrawn) The vaccine composition according to claim 14 wherein the compound is 4-(2-formyl-3-hydroxyphenoxymethyl)benzoic acid.

18. (withdrawn and currently amended) A method of making the combination of components according to claim 24, which comprises combining a nucleotide sequence which encodes for an antigenic peptide associated with a disease state and is not associated with a virus particle, within an appropriate vector, and a Schiff base forming compound which will enhance both humoral and cellular immune responses initiated by the antigenic peptide, wherein said compound is selected from the group consisting of:
4-(2-formyl-3-hydroxyphenoxymethyl)benzoic acid;
5-(2-formyl-3-hydroxyphenoxy)pentanamide;
N,*N*-diethyl 5-(2-formyl-3-hydroxyphenoxy)pentanamide;
N-isopropyl 5-(2-formyl-3-hydroxyphenoxy)pentanamide;
ethyl 5-(2-formyl-3-hydroxyphenoxy)pentanoate;
5-(2-formyl-3-hydroxyphenoxy)pentanonitrile;
(±)-5-(2-formyl-3-hydroxyphenoxy)-2-methylpentanoic acid;
5-(2-formyl-3-hydroxyphenoxy)-2,2-dimethylpentanoic acid;
methyl 3-(2-formyl-3-hydroxyphenoxy)methylbenzoate;
3-(2-formyl-3-hydroxyphenoxy)methylbenzoic acid;
benzyl 5-(2-formyl-3-hydroxyphenoxy)pentanoate;
5-[4-(2-formyl-3-hydroxyphenoxy)-*N*-butyl]tetrazole;

7-(2-formyl-3-hydroxyphenoxy)heptanoic acid;

5-(2-formyl-3-hydroxy-4-*n*-propoxyphenoxy)pentanoic acid;

5-(4,6-dichloro-2-formyl-3-hydroxyphenoxy)pentanoic acid;

5-(2-formyl-3-hydroxyphenoxy)-*N*-methylsulphonylpentanamide;

ethyl 4-(2-formyl-3-hydroxyphenoxymethyl)benzoate;

5-(4-chloro-2-formyl-3-hydroxyphenoxy)pentanoic acid;

5-(3-acetylamino-2-fomyl phenoxy)pentanoic acid;

Aminoguanidine;

4-(2-formyl-3-hydroxyphenoxy)butanoic acid;

6-(2-formyl-3-hydroxyphenoxy)hexanoic acid;

ethyl 4-(3-acetylaminio-2-formylphenoxymethyl)benzoate;

4-(3-acetylamino-2-formylphenoxymethyl)benzoic acid;

2-(2-formyl-3-hydroxyphenoxymethyl)benzoic acid;

5-[4-(2-formyl-3-hydroxyphenoxymethyl)phenyl]tetrazole;

5-(2-formyl-3-hydroxy-4-methoxyphenoxy)pentanoic acid;

3-(2-formyl-3-hydroxyphenoxy)propionitrile;

4-Hydroxyphenylacetaldehyde;

Phenylacetaldehyde;

4-Methoxyphenylacetaldehyde;

1-hydroxy-2-phenylpropane;

3-Phenylproponionaldeyde;

4-Nitrobenzaldehyde;

Methyl 4-formylbenzoate;

4-Chlorobenzaldehyde;

4-Methyloxybenzaldehyde;

4-Methylbenzaldehyde;

8,10-Dioxoundecanoic acid;

4,6-Dioxoheptanoic acid;

Pentanedione;

5-methoxy-1-tetralone;
6-methoxy-1-tetralone;
7-methoxy-1-tetralone;
2-tetralone;
3-hydroxy-1-(4-methoxyphenyl)-3-methyl-2-butanone;
2' ,4'-dihydroxy-2-(4-methoxyphenyl)acetophenone;
2-hydroxy-1-(4-methyoxyphenyl)-pent-2ene-4one;
Naringenin 4',5,6-trihydroxyflavonone;
4'-methoxy-2-(4-methoxyphenyl)acetophenone;
6,7-dihydroxycoumarin;
7-methoxy-2-tetralone;
6,7-dimethoxy-2-tetralone;
6-hydroxy-4-methylcoumarin;
Homogentisic acid gamma lactone;
6-hydroxy-1,2-naphthoquinone;
8-methoxy-2-tetralone;
and physiologically acceptable salts thereof, where appropriate.

19. (withdrawn) The method according to claim 18 wherein the combination of components is in a form suitable for administration via the oral, nasal, pulmonary, intramuscular, subcutaneous or intradermal routes.

20. (withdrawn) The method according to claim 19 wherein the combination of components is in a form suitable for administration using a gene-gun delivery technique.

21. (withdrawn) The method according to claim 18 wherein the compound is 4-(2-formyl-3-hydroxyphenoxymethyl)benzoic acid.

22. (withdrawn) The method according to claim 18 wherein the compound is administered at a dose between about 0.1 mg/kg and 100 mg/kg per administration.

23. (withdrawn) The method according to claim 18 wherein the combination of components further comprises the nucleotide sequence.

24. (currently amended) A combination of components for separate, sequential or concomitant administration in a method of vaccinating a mammal against a disease state, comprising administrating to said mammal, within an appropriate vector, a nucleotide sequence encoding an antigenic peptide associated with the disease state and not associated with a virus particle;

additionally administering to said mammal a Schiff base forming compound which enhances both humoral and cellular immune responses initiated by the antigenic peptide, the compound being selected from the group consisting of:
4-(2-formyl-3-hydroxyphenoxymethyl)benzoic acid;
5-(2-formyl-3-hydroxyphenoxy)pentanamide;
N,N-diethyl 5-(2-formyl-3-hydroxyphenoxy)pentanamide;
N-isopropyl 5-(2-formyl-3-hydroxyphenoxy)pentanamide;
ethyl 5-(2-formyl-3-hydroxyphenoxy)pentanoate;
5-(2-formyl-3-hydroxyphenoxy)pentanonitrile;
(±)-5-(2-formyl-3-hydroxyphenoxy)-2-methylpentanoic acid;
5-(2-formyl-3-hydroxyphenoxy)-2,2-dimethylpentanoic acid;
methyl 3-(2-formyl-3-hydroxyphenoxy)methylbenzoate;
3-(2-formyl-3-hydroxyphenoxy)methylbenzoic acid;
benzyl 5-(2-formyl-3-hydroxyphenoxy)pentanoate;
5-[4-(2-formyl-3-hydroxyphenoxy)-*N*-butyl]tetrazole;
7-(2-formyl-3-hydroxyphenoxy)heptanoic acid;
5-(2-formyl-3-hydroxy-4-*n*-propoxyphenoxy)pentanoic acid;
5-(4,6-dichloro-2-formyl-3-hydroxyphenoxy)pentanoic acid;

5-(2-formyl-3-hydroxyphenoxy)-*N*-methylsulphonylpentanamide;
ethyl 4-(2-formyl-3-hydroxyphenoxymethyl)benzoate;
5-(4-chloro-2-formyl-3-hydroxyphenoxy)pentanoic acid;
5-(3-acetylamino-2-fomyl phenoxy)pentanoic acid;
Aminoguanidine;
4-(2-formyl-3-hydroxyphenoxy)butanoic acid;
6-(2-formyl-3-hydroxyphenoxy)hexanoic acid;
ethyl 4-(3-acetylaminio-2-formylphenoxymethyl)benzoate;
4-(3-acetylamino-2-formylphenoxymethyl)benzoic acid;
2-(2-formyl-3-hydroxyphenoxymethyl)benzoic acid;
5-[4-(2-formyl-3-hydroxyphenoxymethyl)phenyl]tetrazole;
5-(2-formyl-3-hydroxy-4-methoxyphenoxy)pentanoic acid;
3-(2-formyl-3-hydroxyphenoxy)propionitrile;
4-Hydroxyphenylacetaldehyde;
Phenylacetaldehyde;
4-Methoxyphenylacetaldehyde;jkhu
1-hydroxy-2-phenylpropane;
3-Phenylproponionaldeyde;
4-Nitrobenzaldehyde;
Methyl 4-formylbenzoate;
4-Chlorobenzaldehyde;
4-Methyloxybenzaldehyde;
4-Methylbenzaldehyde;
8,10-Dioxoundecanoic acid;
4,6-Dioxoheptanoic acid;
Pentanedione;
5-methoxy-1-tetralone;
6-methoxy-1-tetralone;
7-methoxy-1-tetralone;

2-tetralone;
3-hydroxy-1-(4-methoxyphenyl)-3-methyl-2-butanone;
2' ,4'-dihydroxy-2-(4-methoxyphenyl)acetophenone;
2-hydroxy-1-(4-methyoxyphenyl)-pent-2ene-4one;
Naringenin 4',5,6-trihydroxyflavonone;
4'-methoxy-2-(4-methoxyphenyl)acetophenone;
6,7-dihydroxycoumarin;
7-methoxy-2-tetralone;
6,7-dimethoxy-2-tetralone;
6-hydroxy-4-methylcoumarin;
Homogentisic acid gamma lactone;
6-hydroxy-1,2-naphthoquinone;
8-methoxy-2-tetralone;
and physiologically acceptable salts thereof, where appropriate;
wherein the combination comprises the nucleotide sequence encoding for an antigenic peptide and the compound which enhances both humoral and cellular immune responses initiated by the antigenic peptide.

25. (previously presented) A method of vaccinating a mammal against a disease state, comprising administrating to said mammal, within an appropriate vector, a nucleotide sequence encoding an antigenic peptide associated with the disease state;
additionally administering to said mammal a Schiff base forming compound which enhances at least Th1 and Th2 associated responses initiated by the antigenic peptide, the compound being selected from the group consisting of:
4-(2-formyl-3-hydroxyphenoxymethyl)benzoic acid;
5-(2-formyl-3-hydroxyphenoxy)pentanamide;
N,N-diethyl 5-(2-formyl-3-hydroxyphenoxy)pentanamide;
N-isopropyl 5-(2-formyl-3-hydroxyphenoxy)pentanamide;
ethyl 5-(2-formyl-3-hydroxyphenoxy)pentanoate;

5-(2-formyl-3-hydroxyphenoxy)pentanonitrile;
(±)-5-(2-formyl-3-hydroxyphenoxy)-2-methylpentanoic acid;
5-(2-formyl-3-hydroxyphenoxy)-2,2-dimethylpentanoic acid;
methyl 3-(2-formyl-3-hydroxyphenoxy)methylbenzoate;
3-(2-formyl-3-hydroxyphenoxy)methylbenzoic acid;
benzyl 5-(2-formyl-3-hydroxyphenoxy)pentanoate;
5-[4-(2-formyl-3-hydroxyphenoxy)-*N*-butyl]tetrazole;
7-(2-formyl-3-hydroxyphenoxy)heptanoic acid;
5-(2-formyl-3-hydroxy-4-*n*-propoxyphenoxy)pentanoic acid;
5-(4,6-dichloro-2-formyl-3-hydroxyphenoxy)pentanoic acid;
5-(2-formyl-3-hydroxyphenoxy)-*N*-methylsulphonylpentanamide;
ethyl 4-(2-formyl-3-hydroxyphenoxymethyl)benzoate;
5-(4-chloro-2-formyl-3-hydroxyphenoxy)pentanoic acid;
5-(3-acetylamino-2-fomyl phenoxy)pentanoic acid;
Aminoguanidine;
4-(2-formyl-3-hydroxyphenoxy)butanoic acid;
6-(2-formyl-3-hydroxyphenoxy)hexanoic acid;
ethyl 4-(3-acetylaminio-2-formylphenoxymethyl)benzoate;
4-(3-acetylamino-2-formylphenoxymethyl)benzoic acid;
2-(2-formyl-3-hydroxyphenoxymethyl)benzoic acid;
5-[4-(2-formyl-3-hydroxyphenoxymethyl)phenyl]tetrazole;
5-(2-formyl-3-hydroxy-4-methoxyphenoxy)pentanoic acid;
3-(2-formyl-3-hydroxyphenoxy)propionitrile;
4-Hydroxyphenylacetaldehyde;
Phenylacetaldehyde;
4-Methoxyphenylacetaldehyde;
1-hydroxy-2-phenylpropane;
3-Phenylproponionaldeyde;
4-Nitrobenzaldehyde;

Methyl 4-formylbenzoate;
4-Chlorobenzaldehyde;
4-Methyloxybenzaldehyde;
4-Methylbenzaldehyde;
8,10-Dioxoundecanoic acid;
4,6-Dioxoheptanoic acid;
Pentanedione;
5-methoxy-1-tetralone;
6-methoxy-1-tetralone;
7-methoxy-1-tetralone;
2-tetralone;
3-hydroxy-1-(4-methoxyphenyl)-3-methyl-2-butanone;
2' ,4'-dihydroxy-2-(4-methoxyphenyl)acetophenone;
2-hydroxy-1-(4-methyoxyphenyl)-pent-2ene-4one;
Naringenin 4',5,6-trihydroxyflavonone;
4'-methoxy-2-(4-methoxyphenyl)acetophenone;
6,7-dihydroxycoumarin;
7-methoxy-2-tetralone;
6,7-dimethoxy-2-tetralone;
6-hydroxy-4-methylcoumarin;
Homogentisic acid gamma lactone;
6-hydroxy-1,2-naphthoquinone;
8-methoxy-2-tetralone;
and physiologically acceptable salts thereof, where appropriate.

26. (previously presented) The method according to claim 25 wherein the compound is 4-(2-formyl-3-hydroxyphenoxymethyl)benzoic acid.

27. (new) The method according to claim 1 wherein the vector which comprises the nucleotide sequence encoding the antigenic peptide is administered in a naked form.

28. (new) The method according to claim 1 wherein the vector which comprises the nucleotide sequence encoding the antigenic peptide is encapsulated by liposomes or within polylactide co-glycolide particles.

29. (new) The vaccine composition according to claim 14 wherein the vector which comprises the nucleotide sequence encoding the antigenic peptide is administered in a naked form.

30. (new) The vaccine composition according to claim 14 wherein the vector which comprises the nucleotide sequence encoding the antigenic peptide is encapsulated by liposomes or within polylactide co-glycolide particles.

31. (new) The method according to claim 18 wherein the vector which comprises the nucleotide sequence encoding the antigenic peptide is administered in a naked form.

32. (new) The method according to claim 18 wherein the vector which comprises the nucleotide sequence encoding the antigenic peptide is encapsulated by liposomes or within polylactide co-glycolide particles.

33. (new) The combination according to claim 24 wherein the vector which comprises the nucleotide sequence encoding the antigenic peptide is administered in a naked form.

34. (new) The combination according to claim 24 wherein the vector which comprises the nucleotide sequence encoding the antigenic peptide is encapsulated by liposomes or within polylactide co-glycolide particles.

35. (new) The method according to claim 25 wherein administration of the compound takes place on between one and seven occasions, between 14 days prior to and 14 days post administration of the nucleotide sequence.

36. (new) The method according to claim 25 wherein administration of the compound takes place on between one and seven occasions, between 7 days prior to and 7 days post administration of the nucleotide sequence.

37. (new) The method according to claim 25 wherein administration of the compound takes place between 24 hours prior to and 24 hours post administration of the nucleotide sequence.

38. (new) The method according to claim 25 wherein administration of the compound is simultaneous with administration of the nucleotide sequence.

39. (new) The method according to claim 25 wherein administration of the compound and the nucleotide sequence is repeated between 1 and 4 times, at intervals of between 1 day and about 18 months.

40. (new) The method according to claim 25 wherein administration of the nucleotide sequence is via the oral, nasal, pulmonary, intramuscular, subcutaneous or intradermal route.

41. (new) The method according to claim 40 wherein the nucleotide sequence is administered using a gene-gun delivery technique.

42. (new) The method according to claim 25 wherein administration of the compound is via the oral, nasal, pulmonary, intramuscular, subcutaneous, intradermal or topical route.

43. (new) The method according to claim 42 wherein the compound is administered using a gene-gun delivery technique.

44. (new) The method according to claim 25 wherein the compound is administered at a dose of between 0.1 mg/kg and 100 mg/kg per administration.

45. (new) The method according to claim 25 wherein the mammal is a human.

46. (new) The method according to claim 25 wherein the vector which comprises the nucleotide sequence encoding the antigenic peptide is administered in a naked form.

47. (new) The method according to claim 25 wherein the vector which comprises the nucleotide sequence encoding the antigenic peptide is encapsulated by liposomes or within polylactide co-glycolide particles.